

ABSTRACT OF THE DISCLOSURE

A semiconductor device has a semiconductor wafer having sensing portions exposed on a surface thereof and an adhesive sheet attached to the semiconductor wafer as a protective cap to cover the sensing portions. The adhesive sheet is composed of a flat adhesive sheet and adhesive disposed generally on an entire surface of the adhesive sheet. Adhesion of the adhesive is selectively reduced by UV irradiation to have adhesion reduced regions, and the adhesion reduced regions face the sensing portions. The protective cap can be produced with high productivity, and securely protect the sensing portions when the semiconductor wafer is diced and is transported.